

REMARKS

Claims 48, 52 and 56 have been amended, and new claims 66 and 67 added, to more clearly and particularly point out the invention being claimed by the Applicants. Claim 50 has been amended to correct an obvious error (claim 48 recites a “cannula body,” not a “cannula member”) and to clarify that the proximal and distal cannula portions are separated after the implant material is perfused out of the respective first and second openings. Claim 49 has been amended to now depend from claim 50, since “severing” the proximal and distal cannula portions is a species of “separating” them. Claim 60 has been amended for clarity and claim 61 has been canceled. No new matter has been added.

Claim Rejections – USC 102

Claims 48-54, 56-58 and 60-65 stand rejected under 35 U.S.C. 102(e), as allegedly being anticipated by “Margulies” et al (USP 6679890). Applicants respectfully traverse this rejection, since Margulies does not disclose each and every limitation required by these claims, especially as amended. Claims 48-65 stand separately rejected under 35 U.S.C. 103(a) as allegedly being obvious over Margulies in view of “Reilly” et al (USP 6248110). Applicant respectfully traverses these rejections, as well, since even if Reilly can be properly combined with Margulies, Reilly does not supply the claim limitations missing from Margulies.

Claim 48 (and New Claim 66)

Claim 48 has been amended to specifically recite that the plunger has an attached sealing member, and that the method includes (i) perfusing implant material out of the first opening into the tissue while the sealing member is in a first position relative to the cannula body and distal to the first opening; (ii) moving the sealing member from the first position to a second position relative to the cannula body and between the first and second openings; and (iii) perfusing implant material out

of the second opening into the tissue while the sealing member is in the second position. New claim 66 has similar limitations, with the “first opening” specifically being a distal end opening of the cannula body. No such method (or apparatus including a moveable plunger with an attached sealing member positioned within a delivery cannula) is taught or suggested by Margulies.

The Examiner has identified the “injection tube (40)” in Fig. 1 of Margulies as somehow reading on the plunger limitation of claim 48. However, the injection tube in Margulies is just that: a tube used to introduce the bone cement into the implant tube (20) through a distal opening “injection tube tip (42). There is no sealing member attached to the injection tube or, for that matter, any actual component in Margulies that performs the function of providing a moveable seal for causing the implantable material to be directed out of different openings in the cannula body depending on the position of the seal. Instead, as described by Margulies, the placement of bone cement is defined by the proximity of the opening of injection tube (40) to the openings in the implant tube (20). Margulies does not disclose or suggest the use of a movable plunger with a sealing member to deflect the implant material out the respective openings in the cannula body, depending on its relative position within the cannula body.

Claim 56

Applicants have amended claim 56 to clarify that the proximal end is separated from the distal end of the cannula body at a predefined detachment location. No such teaching is implied or can be inferred from the act of “trimming” an excess material portion of the implant cannula 20, as is mentioned at col. 5, lines 64-67 of Margulies. This is especially true with the Margulies implant device 20, since the length of the excess portion to be trimmed (if any!) is not known until the device is already implanted in the bone tissue and filled with bone cement.

The Examiner reads the same sentence at col. 5, lines 64-67 of Margulies as disclosing separating the two ends by “applying a shearing or twisting force,” as required by dependent claim 62). However, the actual sentence reads: “(7) The distal end (exposed) of the implant 20 is *trimmed* of excess material, as may be required, and the original incision that provides access for forming the hole 14 of step (1) is closed for healing.” (Emphasis added). Nowhere in this sentence is there any mention of “applying a shearing or twisting force” and Applicants are not aware of any such ordinary or customary meaning of the word “trimmed.”

Similarly, the Examiner reads the sentence at col. 4, lines 62-64 as disclosing “unscrewing” the proximal end from the distal end, as required by dependent claim 63. However, this sentence actually reads: “The lateral portion 21 of the implant 20 has a screw thread 26 along the length of the lateral portion to fix the lateral portion to the femoral cortex 5a.” This screw thread 26 is obviously used to screw the implant into the femoral cortex bone, and there is no mention or suggestion as to how the screw thread (which is shown in Fig. 2a as extending axially along the length of the implant 20) could possibly be used as a detachment mechanism for detaching a distal end portion from a proximal end portion of the cannula body at a predefined detachment location.

Reilly is only cited for the proposition that it was known prior to Applicants’ invention to deliver an implant material (e.g., bone cement) through a cannula. Applicants do not dispute this aspect of Reilly, but would simply point out that Reilly makes no teaching or suggestion of the method of delivering an implant material disclosed and claimed in the present application, and does not supply any of the above-discussed claim limitations missing in Margulies.

For at least these reasons, independent claims 48 and 56, along with respective dependent claims 49-55, 57-60 and 62-66, as well as new claims 66-67 are believed allowable over Margulies,

whether alone or combined with Reilly, and withdrawal of the 102(c) and 103 claim rejections is respectfully requested.

CONCLUSION

In view of the foregoing, withdrawal of the claim rejections and the allowance of the application is respectfully requested. Should the Examiner have any questions or comments regarding this amendment, he is invited to contact the undersigned at the number listed below.

Respectfully submitted,

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